Appendix T

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Evidence of Water Quality Impairments for Indicator Bacteria in Hydrologic Areas Not On the 2006 Clean Water Act Section 303(d) List of Water Quality Limited Segments Requiring TMDLs

The Total Maximum Daily Loads for Indicator Bacteria Project I – Beaches and Creeks in the San Diego Region project applies to the Pacific shoreline of the Miramar Reservoir and Scripps Hydrologic Areas (HA), even though these segments of shoreline are not listed as impaired by indicator bacteria on the 2006 Clean Water Act Section 303(d) List of Water Quality Limited Segments Requiring TMDLs. These shoreline segments are included in the TMDL because indicator bacteria water quality data demonstrate that water quality objectives are not met at beaches within the HAs. Indicator bacteria data collected by the County of San Diego's Ocean and Bay Recreational Water Quality Program from 1999 2006 at beaches within the HAs were assessed to make this determination. Data were typically collected on a weekly basis, though the length of time over which data collection occurred at different beaches varies.

Data were assessed to determine impairment according to the State Water Resources Control Board's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (Listing Policy). Three approaches to data assessment were used for each beach. First, all available data were considered and the number of exceedances of single sample water quality objectives were tallied and compared to the Listing Policy's minimum number of measured exceedances needed to place a water segment on the Clean Water Act Section 303(d) List. Second, samples collected at times that correlated with storm events were identified and the number of those samples that exceeded single sample water quality objectives was identified. The frequency of exceedances that correlated with storm events was also compared to the Listing Policy's minimum number of measured exceedances needed for Clean Water Act Section 303(d) listing. Finally, data were also assessed to identify exceedances of geometric mean (geomean) water quality objectives. Monthly geomean values were calculated from the data, which were then compared to the geomean water quality objectives. Again, exceedances were tallied and compared to the Listing Policy's minimum number of measured exceedances needed for Clean Water Act Section 303(d) listing. Those beaches that exceeded Listing Policy's impairment criteria are identified in Table T-1 below.

T-1

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¹ County of San Diego Ocean and Bay Recreational Water Quality Program, 2007. Assembly Bill 411 Monitoring Data, 1999-2006.

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Table T-1 Reaches in the Miramar and Scripps HA with Indicator Racteria Water Quality Impairments

Hydrologie Area	Beach Segment	Total Coliform (REC-1)	Fecal Coliform (REC-1)	Enterococcus (REC-1)	Proposed 2008 303(d) Listing?
Miramar	Pacific Shoreline at	16 out of 424 samples exceeded the	26 out of 324 samples exceeded	36 out of 414 samples exceeded	Yes
Reservoir	Los Penasquitos	single sample maximum water	the single sample maximum	the single sample maximum	
HA	Lagoon	quality objective.	water quality objective.	water quality objective.	
		2 out of 81 calculated monthly	None of the 65 calculated	5 out of 78 calculated monthly	
		geomeans exceeded the geomean	monthly geomeans exceeded the	geomeans exceeded the	
		water quality objective.	geomean water quality objective.	geomean water quality	
				objective.	
		10 out of 25 samples collected	11 out of 21 samples collected		
		during wet weather exceeded the	during wet weather exceeded	15 out of 27 samples collected	
		single sample maximum water	the single sample maximum	during wet weather exceeded	
		quality objective.	water quality objective.	the single sample maximum	
		1	1	water quality objective.	
	Pacific Shoreline at	0 out of 59 samples exceeded the	0 out of 59 samples exceeded the	1 of the 59 samples exceeded	No
	Anderson Canyon	single sample maximum water	single sample maximum water	the single sample maximum	
	J	quality objective.	quality objective.	water quality objective.	
		1	4	quantity conjusted to	
		0 out of 16 calculated monthly	0 out of 16 calculated monthly	0 out of 16 calculated monthly	
		geomeans exceeded the geomean	geomeans exceeded the geomean	geomeans exceeded the	
		water quality objective.	water quality objective.	geomean water quality	
		1 · · · · · · · · · · · · · · · · · · ·	1	objective.	
		None of the samples were collected	None of the samples were		
		during wet weather conditions.	collected during wet weather	None of the samples were	
			conditions.	collected during wet weather	
				conditions.	
Scripps HA	Pacific Shoreline at	3 out of 325 samples exceeded the	12 out of 272 samples exceeded	32 out of 314 samples exceeded	Yes
	Avenida de la Playa	single sample maximum water	the single sample maximum	the single sample maximum	
	-	quality objective.	water quality objective.	water quality objective.	
		1 out of 66 calculated monthly	2 out of 53 calculated monthly	7 out of 63 calculated monthly	
		geomeans exceeded the geomean	geomeans exceeded the geomean	geomeans exceeded the	
		water quality objective.	water quality objective.	geomean water quality	
		g	gan sy a syeere e	objective.	
		2 out of 16 samples collected during	3 out of 12 samples collected		
		wet weather exceeded the single	during wet weather exceeded the	6 out of 13 samples collected	
		sample maximum water quality	single sample maximum water	during wet weather exceeded	
		objective.	quality objective	the single sample maximum	
			quanti objective	water quality objective.	

Hydrologie Area	Beach Segment	Total Coliform (REC-1)	Fecal Coliform (REC-1)	Enterococcus (REC-1)	Proposed 2008 303(d) Listing?
Scripps HA	Pacific Shoreline at	1 out of 172 samples exceeded the	1 out of 174 samples exceeded	4 out of 175 samples exceeded	No
	El Paseo Grande	single sample maximum water	the single sample maximum	the single sample maximum	
		quality objective.	water quality objective.	water quality objective.	
		1 out of 46 calculated monthly	1 out of 46 calculated monthly	2 out of 46 calculated monthly	
		geomeans exceeded the geomean	geomeans exceeded the geomean	geomeans exceeded the	
		water quality objective.	water quality objective.	geomean water quality objective.	
		0 out of 6 samples collected during	0 out of 5 samples collected		
		wet weather exceeded the single	during wet weather exceeded the	1 of the 6 samples collected	
		sample maximum water quality	single sample maximum water	during wet weather exceeded the	
		objective.	quality objective.	single sample maximum water	
		3		quality objective.	
	Pacific Shoreline at	0 out of 214 samples exceeded the	5 out of 174 samples exceeded	8 out of 213 samples exceeded	No
	Scripps Pier	single sample maximum water	the single sample maximum	the single sample maximum	
		quality objective.	water quality objective.	water quality objective.	
		0 out of 51 calculated monthly	1 out of 39 calculated monthly	2 out of 50 calculated monthly	
		geomeans exceeded the geomean	geomeans exceeded the geomean	geomeans exceeded the	
		water quality objective.	water quality objective.	geomean water quality	
				objective.	
		0 out of 4 samples collected during	0 out of 3 samples collected		
		wet weather exceeded the single	during wet weather exceeded the	1 of the 4 samples collected	
		sample maximum water quality	single sample maximum water	during wet weather exceeded the	
		objective.	quality objective.	single sample maximum water quality objective.	
	Pacific	0 out of 33 samples exceeded the	2 out of 33 samples exceeded the	6 out of 33 samples exceeded	Yes
	Shoreline at	single sample maximum water	single sample maximum water	the single sample maximum	
	Vallecitos	quality objective.	quality objective.	water quality objective.	
		0 out of 4 calculated monthly	1 out of four calculated monthly	1 out of two calculated monthly	
		geomeans exceeded the geomean	geomeans exceeded the geomean	geomeans exceeded the	
		water quality objective.	water quality objective.	geomean water quality objective.	
		None of the samples were collected	None of the samples were		
		during wet weather.	collected during wet weather.	None of the samples were	
				collected during wet weather.	

Hydrologie Area	Beach Segment	Total Coliform (REC-1)	Fecal Coliform (REC-1)	Enterococcus (REC-1)	Proposed 2008 303(d) Listing?
Scripps HA	Pacific Shoreline at	0 out of 241 samples exceeded the	2 out of 244 samples exceeded	3 out of 265 samples exceeded	No
	Grand Avenue	single sample maximum water	the single sample maximum	the single sample maximum	
		quality objective.	water quality objective.	water quality objective.	
		0-out of 50-calculated monthly	0 out of 53 calculated monthly	0 out of 47 calculated monthly	
		geomeans exceeded the geomean	geomeans exceeded the geomean	geomeans exceeded the	
		water quality objective.	water quality objective.	geomean water quality objective.	
		0 out of 5 samples collected during	0 out of 5 samples collected		
		wet weather exceeded the single	during wet weather exceeded the	1 out of 7 samples collected	
		sample maximum water quality	single sample maximum water	during wet weather exceeded the	
		objective.	quality objective.	single sample maximum water	
		3	1	quality objective.	
	Pacific Shoreline at	10 out of 429 samples exceeded the	81 out of 452 samples exceeded	161 out of 487 samples	Yes
	Pacific Beach Point	single sample maximum water	the single sample maximum	exceeded the single sample	
		quality objective.	water quality objective.	maximum water quality	
		quantity conference	water quarrey objectives	objective.	
		4 out of 71 calculated monthly	10 out of 78 calculated monthly		
		geomeans exceeded the geomean	geomeans exceeded the geomean	47 out of 78 calculated	
		water quality objective.	water quality objective.	monthly geomeans exceeded	
		1 3 3		the geomean water quality	
		0 out of 9 samples collected during	1 of the 10 samples collected	objective.	
		wet weather exceeded the single	during wet weather exceeded the		
		sample maximum water quality	single sample maximum water	5 out of 10 samples collected	
		objective.	quality objective.	during wet weather exceeded	
		3	1	the single sample maximum	
				water quality objective.	
	Pacific Shoreline at	0 out of 239 samples exceeded the	4 out of 198 samples exceeded	12 out of 236 samples exceeded	Yes
	Tourmaline Surf	single sample maximum water	the single sample maximum	the single sample maximum	
	Park	quality objective.	water quality objective.	water quality objective.	
		0 out of 58 calculated monthly	0 out of 48 calculated monthly	4 out of 57 calculated monthly	
		geomeans exceeded the geomean	geomeans exceeded the geomean	geomeans exceeded the	
		water quality objective.	water quality objective.	geomean water quality	
				objective.	
		0 out of 15 samples collected during	3 out of 12 samples collected		
		wet weather exceeded the single	during wet weather exceeded the	5 out of 13 samples collected	
		sample maximum water quality	single sample maximum water	during wet weather exceeded	
		objective.	quality objective.	the single sample maximum	
				water quality objective.	

Hydrologie Area	Beach Segment	Total Coliform (REC-1)	Fecal Coliform (REC-1)	Enterococcus (REC-1)	Proposed 2008 303(d) Listing?
Scripps HA	Pacific Shoreline at	1 out of 191 samples exceeded the	1 out of 144 samples exceeded	5 out of 146 samples exceeded	No
	Whispering Sands	single sample maximum water	the single sample maximum	the single sample maximum	
		quality objective.	water quality objective.	water quality objective.	
		1 out of 46 calculated monthly	0 out of 40 calculated monthly	3 out of 43 calculated monthly	
		geomeans exceeded the geomean	geomeans exceeded the geomean	geomeans exceeded the	
		water quality objective.	water quality objective.	geomean water quality objective.	
		0 out of 5 samples collected during	0 out of 3 samples collected	objective.	
		wet weather exceeded the single	during wet weather exceeded the	1 out of four samples collected	
		sample maximum water quality	single sample maximum water	during wet weather exceeded the	
		objective.	quality objective.	single sample maximum water	
		objective.	quanty objective.	quality objective.	
	Pacific Shoreline at	0 out of 142 samples exceeded the	4 out of 142 samples exceeded	3 out of 130 samples exceeded	No
	Bonair	single sample maximum water	the single sample maximum	the single sample maximum	110
	Bonar	quality objective.	water quality objective.	water quality objective.	
		0 out of 35 calculated monthly	0 out of 33 calculated monthly	0 out of 31 calculated monthly	
		geomeans exceeded the geomean	geomeans exceeded the geomean	geomeans exceeded the	
		water quality objective.	water quality objective.	geomean water quality objective.	
		0 out of 8 samples collected during	1 out of 7 samples collected		
		wet weather exceeded the single	during wet weather exceeded the	1 out of 7 samples collected	
		sample maximum water quality	single sample maximum water	during wet weather exceeded the	
		objective.	quality objective.	single sample maximum water quality objective.	
	Pacific Shoreline at	0 out of 274 samples exceeded the	0 out of 235 samples exceeded	2 out of 275 samples exceeded	No
	Playa Del Norte	single sample maximum water	the single sample maximum	the single sample maximum	
	Tiaya Berriotte	quality objective.	water quality objective.	water quality objective.	
		0 out of 64 calculated monthly	0 out of 59 calculated monthly	1 out of 64 calculated monthly	
		geomeans exceeded the geomean	geomeans exceeded the geomean	geomeans exceeded the	
		water quality objective.	water quality objective.	geomean water quality objective.	
		0 out of 3 samples collected during	0 out of 3 samples collected	3	
		wet weather exceeded the single	during wet weather exceeded the	0 out of 7 samples collected	
		sample maximum water quality	single sample maximum water quality objective.	during wet weather exceeded the single sample maximum water	
		objective.	quanty objective.	quality objective.	

Hydrologie Area	Beach Segment	Total Coliform (REC-1)	Feeal Coliform (REC-1)	Enterococcus (REC-1)	Proposed 2008 303(d) Listing?
Scripps HA	Pacific Shoreline at Vista de la Playa	O out of 55 samples exceeded the single sample maximum water quality objective.	0 out of 55 samples exceeded the single sample maximum water quality objective.	1 out of 55 samples exceeded the single sample maximum water quality objective.	No
		0 out of 12 calculated monthly geomeans exceeded the geomean water quality objective.	0 out of 12 calculated monthly geomeans exceeded the geomean water quality objective.	0 out of 11 calculated monthly geomeans exceeded the geomean water quality objective.	
		None of the samples were collected during wet weather.	None of the samples were collected during wet weather.	None of the samples were	

Descriptions in **BOLD** indicate evidence of water quality impairments according to the State Water Resources Control Board's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List.